AP Features:

+ Support for 802.11a/b/g
  - DWL-7130AP and DWL-7230AP
+ External 2dBi or 5dBi Antenna Included (excluding DWL-3230AP)
+ 10/100Mbps Ethernet Interface
+ PoE Powered
  - DWL-2230AP, DWL-3230AP, and DWL-7230AP
+ Removable Antenna (excluding DWL-3230AP and DWL-7130AP)

Wireless Access Points for DWS-3200 Series Switches

Designed for the xStack 3200 Series of wireless switches, the DWL-2130AP, DWL-2230AP, DWL-3230AP DWL-7130AP, and DWL-7230AP access points (APs) offer a flexible solution for integration in various network applications. With options for supporting 802.11a/b/g, 802.11b/g only, and Power over Ethernet (PoE), these APs are designed to fit virtually any network topology. When used in conjunction with the xStack 3200 Series wireless switch, these APs unlock the power of wireless switching and facilitate advanced features such as centralized AP management, seamless Layer 3 roaming, tunneling between multiple IP subnets, and rogue AP detection and jamming.

Overview

The DWL-7130AP is a dual-band access point capable of supporting users on both 802.11a and 802.11g wireless standards. The DWL-7230AP provides the same dual band 802.11a/g functionality as the DWL-7130AP, but is also 802.3af PoE compliant. When used with the xStack DXS/DWS-3227P PoE enabled switch, power can be provided to the AP over standard CAT5 Ethernet cabling, eliminating the need for additional wiring.

The DWL-3230AP is a smoke-detector (ceiling-mount) form factor thin client AP, easily able to blend into the surrounding environment. This PoE enabled access point supports both 802.11b and 802.11g.

The DWL-2130AP and DWL-2230AP (PoE capable model) are a lower cost solution for networks not needing to support the 802.11a standard. With support for 802.11b and 802.11g, these wireless APs are compatible with the industry's most commonly used wireless network protocol.

	DWL-2130AP	DWL-2230AP	DWL-3230AP	DWL-7130AP	DWL-7230AP
IEEE 802.11b					
Standard	IEEE 802.11b	IEEE 802.11b	IEEE 802.11b	IEEE 802.11b	IEEE 802.11b
Radio and Modulation Type	DQPSK, DBPSK, AND CCK	DQPSK, DBPSK, AND CCK	DQPSK, DBPSK, AND CCK	DQPSK, DBPSK, AND CCK	DQPSK, DBPSK, AND CCK
Operating Frequency	2400-2497MHz ISM Band	2400 ~ 2497MHz ISM Band	2400 ~ 2497MHz ISM Band	2400-2497MHz ISM Band	2400-2497MHz ISM Band
Channel Numbers	11 Channels	11 Channels	11 Channels	11 Channels	11 Channels
Data Rate[1]	11, 5.5, 2, and 1Mbps	11, 5.5, 2, and 1Mbps	11, 5.5, 2, and 1Mbps	11, 5.5, 2, and 1Mbps	11, 5.5, 2, and 1Mbps
Media Access Protocol	CSMA/CA with ACK	CSMA/CA with ACK	CSMA/CA with ACK	CSMA/CA with ACK	CSMA/CA with ACK
Transmitter Output Power	Typical 18dBm at 11, 5.5, 2 and 1Mbps	Typical 18dBm at 11, 5.5, 2 and 1Mbps	Typical 18dBm at 11, 5.5, 2 and 1Mbps	Typical 18dBm at 11, 5.5, 2 and 1Mbps	Typical 18dBm at 11, 5.5, 2 and 1Mbps

	DWL-2130AP	DWL-2230AP	DWL-3230AP	DWL-7130AP	DWL-7230AP
Receiver Sensitivity	-84dBm for 11Mbps @ 8% PER	-84dBm for 11Mbps @ 8% PER	-83dBm for 11Mbps @ 8% PER	-85dBm for 11Mbps @ 8% PER	-85dBm for 11Mbps @ 8% PER (Packet Error Rate)
	-89dBm @ 5.5Mbps	-89dBm @ 5.5Mbps	x	-88dBm for 5.5Mbps @ 8% PER	-88dBm for 5.5Mbps @ 8% PER (Packet Error Rate)
	-90dBm for 2Mbps @ 8% PER	-90dBm for 2Mbps @ 8% PER	-89dBm for 2Mbps @ 8% PER	-90dBm for 2Mbps @ 8% PER	-90dBm for 2Mbps @ 8% PER (Packet Error Rate)
	-91dBm @ 1Mbps	-93dBm @ 1Mbps	x	-92dBm for 1Mbps @ 8% PER	-92dBm for 1Mbps @ 8% PER (Packet Error Rate)
IEEE 802.11g					
Standard	IEEE 802.11g	IEEE 802.11g	IEEE 802.11g	IEEE 802.11g	IEEE 802.11g
Radio and Modulation Type	BPSK, QPSK, 16QAM, 64QAM, OFDM	BPSK, QPSK, 16QAM, 64QAM, OFDM	BPSK, QPSK, 16QAM, 64QAM, OFDM	BPSK, QPSK, 16QAM, 64QAM, OFDM	BPSK, QPSK, 16QAM, 64QAM, OFDM
Operating Frequency	2400 ~ 2483.5MHz ISM band	2400 ~ 2483.5MHz ISM band	2400 ~ 2483.5MHz ISM band	2400 ~ 2483.5MHz ISM band	2400 ~ 2483.5MHz ISM band
Channel Numbers	11 Channels	11 Channels	11 Channels	11 Channels	11 Channels
Data Rate[1]	54, 48, 36, 24, 18, 12, 9 and 6Mbps	54, 48, 36, 24, 18, 12, 9 and 6Mbps	54, 48, 36, 24, 18, 12, 9 and 6Mbps	54, 48, 36, 24, 18, 12, 9 and 6Mbps	54, 48, 36, 24, 18, 12, 9 and 6Mbps
Media Access Protocol	CSMA/CA with ACK	CSMA/CA with ACK	CSMA/CA with ACK	CSMA/CA with ACK	CSMA/CA with ACK
Transmitter Output Power	+15dBm at 54Mbps	+15dBm at 54Mbps	+14 ~ 15dBm at 54Mbps	+15dBm at 54Mbps	+15dBm at 54Mbps
	+16dBm at 48Mbps	+16dBm at 48Mbps	+14 ~ 16dBm at 48Mbps	+14 ~ 16dBm at 48Mbps	+14 ~ 16dBm at 48Mbps
	+17dBm at 36Mbps	+17dBm at 36Mbps	+16 ~ 18dBm at 36Mbps	+17dBm at 36Mbps	+17dBm at 36Mbps
	+18dBm at 24, 18, 12, 9, and 6Mbps	+18dBm at 24, 18, 12, 9, and 6Mbps	+16 ~ 18dBm at 24, 18, 12, 9, and 6Mbps	+18dBm at 24, 18, 12, 9, and 6Mbps	+18dBm at 24, 18, 12, 9, and 6Mbps
Receiver Sensitivity	Typical Sensitivity @ which frame (1000-byte PDUs) Error Rate=10%	Typical Sensitivity @ which frame (1000-byte PDUs) Error Rate=10%	Typical Sensitivity @ which frame (1000-byte PDUs) Error Rate=10%	Typical Sensitivity @ which frame (1000-byte PDUs) Error Rate=10%	Typical Sensitivity @ which frame (1000-byte PDUs) Error Rate=10%
	–85dBm at 6Mbps	–85dBm at 6Mbps	–85dBm at 6Mbps	–85dBm at 6Mbps	–85dBm at 6Mbps
	–84dBm at 9Mbps	–84dBm at 9Mbps	–84dBm at 9Mbps	–84dBm at 9Mbps	–84dBm at 9Mbps
	–82dBm at 12Mbps	–82dBm at 12Mbps	–82dBm at 12Mbps	–82dBm at 12Mbps	–82dBm at 12Mbps
	–80dBm at 18Mbps	–80dBm at 18Mbps	–80dBm at 18Mbps	–80dBm at 18Mbps	–80dBm at 18Mbps
	–77dBm at 24Mbps	–77dBm at 24Mbps	–77dBm at 24Mbps	–77dBm at 24Mbps	–77dBm at 24Mbps
	–73dBm at 36Mbps	–73dBm at 36Mbps	–73dBm at 36Mbps	–73dBm at 36Mbps	–73dBm at 36Mbps
	–69dBm at 48Mbps	–69dBm at 48Mbps	–69dBm at 48Mbps	–69dBm at 48Mbps	–69dBm at 48Mbps
	–68dBm at 54Mbps	–68dBm at 54Mbps	–68dBm at 54Mbps	–68dBm at 54Mbps	–68dBm at 54Mbps

IEEE 802.11a

Standard	x	x	x	IEEE 802.11a	IEEE 802.11a
Radio and Modulation Type	x	x	x	BPSK, QPSK, 16QAM, 64QAM, OFDM	BPSK, QPSK, 16QAM, 64QAM, OFDM
Operating Frequency	x	x	x	5.15 ~ 5.24GHz	5.15 ~ 5.24GHz
	x	x	x	5.745 ~ 5.805GHz	5.745 ~ 5.805GHz
Channel Numbers	x	x	x	8 non-overlapping channels	8 non-overlapping channels
Data Rate[1]	x	x	x	54, 48, 36, 24, 18, 12, 9 and 6Mbps	54, 48, 36, 24, 18, 12, 9 and 6Mbps
Media Access Protocol	x	x	x	CSMA/CA with ACK	CSMA/CA with ACK
Transmitter Output Power	x	x	x	+12 ~ 15dBm at 54Mbps	+12 ~ 15dBm at 54Mbps
	x	x	x	+14 ~ 16dBm at 48Mbps	+14 ~ 16dBm at 48Mbps
	x	x	x	+17 ~ 18dBm at 36Mbps	+17 ~ 18dBm at 36Mbps
	x	x	x	+18 ~ 19dBm at 24, 18, 12, 9, and 6Mbps	+18 ~ 19dBm at 24, 18, 12, 9, and 6Mbps
Receiver Sensitivity	x	x	x	Typical Sensitivity at Which Frame (1000-byte PDUs) Error Rate = 10%	Typical Sensitivity at Which Frame (1000-byte PDUs) Error Rate = 10%
	x	x	x	–84dBm at 6Mbps	–84dBm at 6Mbps
	x	x	x	–83dBm at 9Mbps	–83dBm at 9Mbps
	x	x	x	–81dBm at 12Mbps	–81dBm at 12Mbps
	x	x	x	–79dBm at 18Mbps	–79dBm at 18Mbps
	x	x	x	–76dBm at 24Mbps	–76dBm at 24Mbps
	x	x	x	–72dBm at 36Mbps	–72dBm at 36Mbps
	x	x	x	–68dBm at 48Mbps	–68dBm at 48Mbps
	x	x	x	–67dBm at 54Mbps	–67dBm at 54Mbps

General Product Specifications

Interface	Power Jack	Power Jack	Power Jack	Power Jack	Power Jack
	Factory Reset Button	Factory Reset Button	Factory Reset Button	Factory Reset Button	Factory Reset Button
	10/100Base-TX (UTP)	10/100Base-TX (UTP)	10/100Base-TX (UTP)	10/100Base-TX (UTP)	10/100Base-TX (UTP)
	Wireless Dipole Antenna	Wireless Dipole Antenna	N/A	Wireless Dipole Antenna	Wireless Dipole Antenna
External Antenna Type	Dipole antenna with 2dBi gain for 2.4GHz	Dipole antenna with 5dBi gain for 2.4GHz	N/A	Dipole antenna with 2dBi gain for 2.4GHz/5GHz	Dipole antenna with 5dBi gain for 2.4GHz/5GHz
Internal Antenna Type	Printed antenna for 2.4GHZ	Printed antenna for 2.4GHz	PIFA antenna with 2dBi gain for 2.4GHz	PIFA antenna with 5dBi gain for 2.4GHz/5GHz	Printed antenna for 2.4GHz/5GHz

	DWL-2130AP	DWL-2230AP	DWL-3230AP	DWL-7130AP	DWL-7230AP
Ethernet Standard	IEEE 802.3, IEEE 802.3u, IEEE 802.3x	IEEE 802.3, IEEE 802.3u, IEEE 802.3x	IEEE 802.3, IEEE 802.3u, IEEE 802.3x	IEEE 802.3, IEEE 802.3u, IEEE 802.3x	IEEE 802.3, IEEE 802.3u, IEEE 802.3x
LEDs	Power, Speed, Wireless	Power, Speed, Wireless	Status	Power, Speed, Wireless 802.11a & 802.11b/g	Power, Speed, Wireless 802.11a & 802.11b/g
Physical Specifications					
Dimensions (W x D x H)	4.25" x 5.59" x 1.25" (142 x 108 x 31mm)	4.25" x 5.59" x 1.25" (142 x 108 x 31mm)	6.75" x 6.75" x 1.88" (172 x 172 x 48mm)	5.51" x 7.6" x 1.22" (140 x 193 x 31mm)	7.6" x 5" x 1.3" (193 x 127 x 32mm)
Electrical & Emissions					
Operating Voltage	5VDC +/- 10%	48VDC +/- 10%	48VDC +/- 10%	5VDC +/- 10%	48VDC +/- 10%
Current Consumption	Maximum 5W	Maximum 6W (8W with PoE)	Maximum 4.5W (6.5W with PoE)	Maximum 6W	Maximum 6W (8W with PoE)
Safety Agency Certifications & Environmental					
Operating Temperating	32°F to 104°F (0°C to +40°C)	32°F to 104°F (0°C to +40°C)	32°F to 104°F (0°C to +40°C)	32°F to 104°F (0°C to +40°C)	32°F to 104°F (0°C to +40°C)
Non-Operating Temperature	-4°F to 149°F (-20°C to +65°C)	-4°F to 149°F (-20°C to +65°C)	-4°F to 149°F (-20°C to +65°C)	-4°F to 149°F (-20°C to +65°C)	-4°F to 149°F (-20°C to +65°C)
Operating Humidity	10% to 90% RH Non-condensing	10% to 90% RH Non-condensing	10% to 90% RH Non-condensing	10% to 90% RH Non-condensing	10% to 90% RH Non-condensing
Non-Operating Humidity	5% to 95%	5% to 95%	5% to 95%	5% to 95%	5% to 95%
USA					
EMI (802.11a)	x	x	x	FCC Part 15.407 (b) Power limits: FCC Part 15.407 (a)	FCC Part 15.407 (b) Power limits: FCC Part 15.407 (a)
EMI (802.11g/b)	FCC part 15.247, 15.205, 15.209	FCC part 15.247, 15.205, 15.209	FCC part 15.247, 15.205, 15.209	FCC part 15.247, 15.205, 15.209	FCC part 15.247, 15.205, 15.209
Safety	UL 1950-3 CSA mark	UL 1950-3 CSA mark	UL 1950-3 CSA mark	UL 1950-3 CSA mark	UL 1950-3 CSA mark
Canada					
EMI (802.11a)	x	x	x	Power limits: RSS-210 6.2.2 (91)	Power limits: RSS-210 6.2.2 (91)
EMI (802.11g/b)	Power limits: RSS-210 6.2.2 (91)	Power limits: RSS-210 6.2.2 (91)	Power limits: RSS-210 6.2.2 (91)	Power limits: RSS-210 6.2.2 (91)	Power limits: RSS-210 6.2.2 (91)
Safety	CSA-International	CSA-International	CSA-International	CSA-International	CSA-International

Ordering Information

Part Number	*Description*
DWL-2130AP	xStack Access Point, 802.11g
DWL-2230AP	xStack PoE Access Point, 802.3af, 802.11g
DWL-3230AP	xStack Ceiling Mount PoE Access Point, 802.3af, 802.11g
DWL-7130AP	xStack Access Point, 802.11a/g
DWL-7230AP	xStack PoE Access Point, 802.3af, 802.11a/g
DXS-3227	xStack Managed 24-Port Gigabit Stackable L2+ PoE Switch, 4 Combo SFP, 3 XG Slots (AP License Required)
DXS-3227P	'Wireless-ready' 24-port Gigabit PoE L2+ switch with onboard 10G XFP slot and 2 additional optional 10G CX4/XFP

DXS-3250	xStack Managed 48-Port Gigabit Stackable L2+ Switch, 4 Combo SFP ports, 2-10 Gig Uplink (AP License Required)
DWS-3227P	xStack Managed 24-Port Stackable PoE Gigabit Wireless Switch, 10AP License
DWS-3250	xStack Managed 48-Port Stackable Gigabit Wireless Switch, 10AP License

[1] Maximum wireless signal rate derived from IEEE Standard 802.11a, 802.11b, and 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental factors will adversely affect wireless signal range.

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